carried-out from which the relevant values of the model parameters are derived by the arithmetic unit 4. The arithmetic unit 4 subsequently derives the correction values based on the mathematical model.

and, after the last line, please add the following new paragraph:

-- All references cited herein are incorporated herein by reference in their entirety and for all purposes to the same extent as if each individual publication or patent or patent application was specifically and individually indicated to be incorporated by reference in its entirety for all purposes. --

Please delete the heading "Claims" at page 12, and in its place insert the following centered heading:

IN THE CLAIMS

Please delete claim 3 without prejudice of subject matter, amend claims 1, 2, 4 and 5 to read as set forth, and add new claims 6-8 as set forth.

1. (Amended) An x-ray examination apparatus comprising

an x-ray image sensor matrix for deriving an initial image signal from a predetermined calibrated x-ray exposure, and an initial image signal from an x-ray image, and

a correction unit for deriving a corrected image signal from the initial image signal, wherein the correction unit includes a memory for storing correction values derived from the calibration image signal and an arithmetic unit for

computing signal levels of the corrected image signal from signal levels of the initial image signal and at least some of said correction values in order to take delayed charges into consideration during correction.

2. (Amended) An x-ray examination apparatus as claimed in Claim 1, wherein the correction unit includes a selection unit for selecting correction values from the memory on the basis of exposure parameters.

4. (Amended) An x-ray examination apparatus as claimed in Claim 1, wherein the arithmetic unit is arranged to compute accurate correction values, from the stored correction values derived from the calibration image signal, and to compute signal levels of the corrected image signal from signal levels of the initial image signal and said accurate correction values.

5. (Amended) An x-ray examination apparatus as claimed in Claim 4, wherein the arithmetic unit is arranged to interpolate said computed correction values between stored correction values.

6. (New) The x-ray examination apparatus as claimed in claim 1, wherein the arithmetic unit is arranged to compute accurate correction values from stored correction values, and to compute signal levels of the corrected image signal from

signal levels of the initial image signal and said accurate correction values.

7. (New) The x-ray examination apparatus as claimed in claim 6, wherein the arithmetic unit is arranged to interpolate said computed correction values between stored correction values.

8. (New) A method for performing an x-ray examination utilizing an x-ray examination apparatus having an x-ray image sensor matrix and an x-ray image correction unit with a memory and arithmetic correction unit wherein a resulting corrected image signal presented for viewing is substantially free of after images from previously generated x-ray image signals, the method comprising the steps of:

deriving a calibrated image signal by irradiating the image sensor matrix with a predetermined calibrated x-ray exposure;

generating correction values from the calibrated image signal;

storing the correction values in a memory;

radiating an object for examination and deriving an instant image signal from the image sensor matrix pursuant to said radiating; and

correcting the instant image signal to form the corrected image signal by processing the instant image signal in the x-ray image correction unit in accordance with at least one of said memory-stored correction values in order to take delayed charges into consideration during correction.